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Hospital Catering

Cardiff and Vale University Health Board

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Summary

1. Hospital catering services are an essential part of patient care given that good quality, nutritious meals play a vital part in patients' rehabilitation and recovery. Effective catering services are dependent on sound planning and the co-ordination of a range of processes involving menu planning, procurement, food production and distribution of meals to wards and patients. Good communication is required across the range of staff groups involved, including managers, catering staff, dieticians, nurses, support staff and porters.
2. The outcome should be a flexible, cost effective catering service that provides a good choice of nutritious meals that can accommodate patients' specific dietary requirements. Patients' nutritional status needs to be properly assessed and monitored, and arrangements put in place to help patients eat and enjoy their meals in an environment conducive to eating.
3. The importance of hospital food in supporting patients' recovery has been recognised in a number of Assembly Government initiatives. The most recent of these takes the form of a Hospital Nutritional Care Pathway and the development of all-Wales charts to record food and fluid intake. There has also been an *Improving Nutritional Care* training programme for all ward managers. These approaches support the *Free to Lead, Free to Care* initiative which is designed to empower ward sisters to take greater control of events on their ward. Best practice in nutritional care is further embedded through specific Healthcare Standards and the *Fundamentals of Care* ward level audit tool.
4. Work by the Audit Commission in Wales in 2001-02 showed that whilst there were some encouraging examples of good practice in relation to hospital catering, these needed to be replicated more widely and practices strengthened in a number of areas. Since then, annual data on facilities performance collected by Welsh Health Estates has highlighted significant variations between hospitals in the daily costs of feeding a patient, and continued problems with food wastage – some 880,000 meals were left untouched in 2008-09. Welsh Health Estates data also suggested that the roll out of recognised good practice such as protected meal times and nutritional analysis of menus is also patchy.
5. The Wales Audit Office has therefore decided that it would be timely to undertake further audit work on hospital catering to review progress since the Audit Commission in Wales report was published, and to examine the extent to which practices set out in the Hospital Nutritional Care Pathway are being embedded.
6. Our review sought to determine whether hospitals in Wales were providing efficient catering services that met recognised good practice. Our audit work looked at the hospital catering 'food chain' from planning and procurement through to the delivery of food to the ward and the management of meal times.

7. Our work in the Cardiff and Vale University Health Board (the UHB) has included fieldwork at the University Hospital of Wales (UHW) and the University Hospital Llandough (UHL) sites, and visits to the following wards (Exhibit 1).

Exhibit 1: Wards visited

Hospital	Ward	Specialty
UHW	A1 Link and MAU	Emergency Medical Admissions
	A2	General Surgery
	C6	General Medicine
UHL	E4	Care of the Elderly and Coronary Care
	E7	Care of the Elderly
	W2	Colorectal Surgery
	W6	Respiratory Care

8. Our audit findings have been informed by an analysis of financial data relating to the patient and non-patient elements of the catering service, and also by surveys of patients to capture their experience of hospital food. Further details of the audit approach are provided in Appendix 1.

9. Our overall conclusion is that although the UHB'S catering arrangements demonstrate many aspects of good practice, these are not consistently applied within and across hospitals. This inconsistency is the result of poor communication between the different staff groups involved in the service, which can affect the quality of the service provided. We came to this conclusion because:

- the UHB's planning of the catering service is effective but would be strengthened by stronger Board scrutiny;
- the UHB procures food effectively and is generally good at controlling the cost of food production and catering, but it wastes far too much food in some areas;
- the UHB provides patients with good quality food, although changing some existing practices and improving the communication between staff in some areas could improve the patient experience;
- some wards are better than others at ensuring that catering and nutrition supports patients' recovery with one ward falling well short of acceptable practice; and
- patient satisfaction with hospital catering is relatively low and because it does not share the patient views it collects between groups of staff, the UHB misses an opportunity to learn and improve.

10. In coming to these conclusions we identified a number of key strengths within the catering service and the way the UHB delivers its services. These included:

- the service is underpinned by sound strategies and policies that have been developed with input from all the appropriate staff groups;
- dieticians are fully involved in menu planning and assessing the nutritional content of the standard costed recipes used by the UHB;
- food production and transportation arrangements mean that meals arrive at the ward in a good state, and remain like that while food is being served;
- the ward based catering arrangements at UHW are flexible and support patient choice;
- there is evidence that nutritional screening of patients on admission is well embedded and that food and fluid intake is monitored using appropriate nursing tools;
- nutritional care plans are produced for patients who require them and there are mechanisms to help identify the patients who need assistance with eating and who have specific nutritional requirements; and
- patients recorded relatively high levels of satisfaction with the food and catering service at UHL.

11. There are number of key areas which could be improved and these included:

- Food wastage levels recorded during the audit were worryingly high and in two wards we visited, around 75 per cent of the food delivered to the ward was wasted, either as unserved meals, or as plated waste. This wastage indicates significant scope for more efficient processes in terms of ordering meals and controlling portion size.
- Many wards are still not adopting the practice of protected meal times;
- In some wards more can be done to prepare the ward environment for meals so that it is more conducive to the enjoyment of food.
- Training for ward based caterers needs to be reviewed to ensure that they have a good understanding of nutrition and the processes the UHB has put in place to meet patients' individual nutritional needs.
- Arrangements of delivery of meals to patients at UHL needs to be reviewed to ensure that patients always receive the correct meal.
- Whilst recognised good practice such as the use of red trays to identify patients with specific dietary needs is in place, it is not employed consistently across wards.
- Catering and nursing staff have separate arrangements for collecting patients' views on the catering service and mechanisms have not been developed for pulling together this information to provide a holistic view to inform service planning.
- Whilst UHW can demonstrate many aspects of recognised good practice, our surveys have shown that patient satisfaction with hospital food at this site is relatively low and more work needs to be done to fully understand the reasons behind this.

12. The detailed report which follows provides more information on the audit findings which have led to the conclusions set out above. Each section of the detailed report identifies the good practice that auditors looked for when undertaking their fieldwork, and what they found in practice. Information is also presented on the practices observed on the individual wards that were visited during the audit.

13. The recommendations arising from the audit are set out below.

Recommendations

14. A number of recommendations have arisen from this review. These are listed below.

Strategic planning and management arrangements	
R1	Ensure that the Board receives more meaningful information on catering services to support effective scrutiny, management of risks and monitoring of performance.
R2	As part of the process of empowering ward managers under Free to Lead Free to Care arrangements, establish an effective fundamentals of care forum that ensure nutrition management issues are effectively managed and the many examples of good practice and innovation are shared.
Procurement production and cost control	
R3	Introduce a clear policy on subsidy to set the framework for delivering non-patient catering services.
R4	Improve the current food wastage monitoring arrangements so that they accurately reflect the level of un-served meals, identify the potential to improve existing systems and then enable food wastage targets to be set.
Delivery of food to the ward	
R5	Introduce basic nutrition into the training programme for ward based catering staff to improve their awareness of its importance and the need to follow ward procedures.
Meeting patients' nutritional needs and supporting recovery	
R6	Introduce protected mealtimes on all appropriate wards and establish arrangements that monitor compliance.
R7	As part of the new nutrition and catering strategy establish the benefits of extending access to the dietetic assistant role.
R8	As part of the new catering strategy look at strengthening and improving the speed of the service at mealtimes through improving staff availability or increasing nursing staff involvement.
R9	Through the fundamentals of care forum monitor the effectiveness of the red tray system, approach, its development and the emerging traffic light systems.
R10	Establish monitoring arrangements that routinely measure compliance with the nutritional care pathway and the effectiveness of the chart review process.

Meeting patients' nutritional needs and supporting recovery (continued)	
R11	Improve the nutritional assessment tool to include an assessment of oral health and the ability to communicate.
R12	In UHL, improve communication processes and the catering service quality monitoring arrangements to ensure patients always receive the right meal for their dietary needs.
Gathering views from patients and sharing information	
R13	Improve information sharing between the catering service and ward managers by integrating the current arrangements used to obtain patients' views of the service.
R14	Involve patients fully in developing the catering service building on the recent positive experiences of their involvement in the puréed and soft food evaluation.

Strategic planning and management arrangements

15. The UHB's planning of the catering service is effective but would be strengthened by stronger Board scrutiny. We have come to this conclusion because:
    - appropriate strategies and policies relating to catering and nutrition are in place and have been developed with a strong lead and effective catering staff and clinician involvement;
    - the menu planning arrangements are sound with effective dietetic involvement; and
    - there is scope to improve the timing and quality of information that the Board receives on catering service risks and performance.
16. The following table summarises the findings supporting these conclusions.

Table 1: Strategic planning and management arrangements

Good practice	In place?	Further information
Service Planning		
The UHB has clear strategies and policies for catering and nutrition.	✓	The previous Trust had a longstanding Catering Strategy and Nutrition Catering Policy in place, which is now being reviewed and updated to reflect the UHB's new management arrangements and changing financial pressures.
Menu design reflects the strategy and policy.	✓	The UHB's dietetic and catering services work closely together to ensure the menu design reflects the strategy and policy. To support these arrangements Dietetics produced comprehensive guidelines for menu planning. This is good practice resulting in all menus, having their components and ingredients dietetically assessed, validated and monitored. Recently, the UHB has developed a new seven-day, 42-item option menu to provide greater choice. This new menu, which is being piloted is planned to improve the choice available for all patients and those requiring ethnic, soft and vegetarian diets.
Dieticians and clinicians are fully involved in strategy and policy development and menu planning.	✓	The Nutrition and Catering Policy was developed by the Head of Dietetics supported by a steering group which includes dieticians, nursing and catering staff. The new Catering Strategy is being developed by the Head of Operations supported by a steering group which includes dieticians, nursing and catering staff.

Good practice	In place?	Further information
Strategy identifies the most efficient and cost effective means of food production.	✓	The UHB's main model is based on a Central Processing Unit (based at UHW) providing frozen meals for regeneration through its Central Production Unit (CPU). The delivery model varies with UHW regenerating food in ward based kitchens, and UHL regenerating meals in a central kitchen with bulk delivery to the wards. The model at UHL replaces the previous traditional plated service that fell well short of good practice in the 2000 audit.
Evidence of workforce planning to match catering staff to demand.	✓	The CPU currently has a production schedule seven days in advance of the menu. This provides sufficient flexibility and allows staffing levels to reflect production. In both hospitals catering managers are confident that the current catering staffing arrangements are flexible and reflect service needs.
Management arrangements		
Executive accountability for catering and nutrition is clearly identified.	✓	The Executive Director of Nursing Services (EDNS) is clearly identified as the Board member responsible for both nutrition and the catering service. This arrangement is an improvement on the previous Trust arrangements whereby the responsibility was split between the Director of Nursing and the Director of Operations.
The Board receives sufficient information on performance and practice in relation catering and nutrition.	✗	Previously the Trust Board only received an annual report on the service. This report was a very high level overview of the service with few performance indicators to measure progress and it rarely identified the potential risks to the service. The new EDNS is planning to review and strengthen the current reporting arrangements.
A multi-disciplinary group is in place to oversee the delivery of the catering service.	✓	There are two multi-disciplinary groups in place which meet regularly to oversee the development and delivery of strategy and policy. The Catering Strategy Group and the Nutrition and Catering Steering Group.
Lead nurse identified to help implement strategy and embed good nutritional practices.	✓	Under the previous management arrangements the Head of Nursing for Facilities and Clinical Support held the lead role for imbedding nutritional practice. In the new structure this role is being strengthened. The selection process was underway at the time of the audit.
Job descriptions and salary ranges for catering staff are harmonised across the UHB.	✓	Although the Agenda for Change appeals process created some anomalies, managers have indicated that most arrangements have been harmonised across the UHB.
Sickness absence is within acceptable levels and is well managed.	✓	Sickness absence during 2009 averaged 7.5 per cent which was above the UHB's five per cent target, although sickness levels had fallen from the previous year. Catering managers reported that current guidelines and procedures supported effective attendance management.

Procurement, production and cost control

17. *The UHB procures food effectively and is generally good at controlling the cost of food production and catering, but it wastes far too much food in some areas. We have come to this conclusion because:*
    - the UHB's procurement arrangements are well controlled and arrangements are in place to ensure that food is obtained from safe and reliable sources;
    - dieticians are fully involved in setting the nutritional specifications and content for all patient food and provisions procured by the UHB;
    - the UHB has not developed its own sustainability policy instead placing reliance on national contract arrangements;
    - food production arrangements are generally well developed but rely heavily on manual paper systems rather than an IT solution;
    - all recipes have been nutritionally assessed by dieticians and effective production arrangements are in place to ensure compliance;
    - staff meals are currently being subsidised by £342,000, which is expected to increase over the next financial year because of reduced vending machine income;
    - some of the key measures to assist with cost control are in place but arrangements could be strengthened by developing a subsidy policy; and
    - our audit identified food wastage levels are higher than those reported by the UHB, which indicates that the efficiency of some catering processes could be improved.
18. The following table summarises the findings supporting these conclusions.

Table 2: Procurement, production and cost control

Good practice	In place?	Further information
Procurement		
Food is procured from approved suppliers, in line with arrangements set out in the all-Wales NHS Procurement Strategy.	✓	The UHB procurement arrangements for catering use Welsh Health Supplies (WHS), and the All Wales and NHS Supply Chain contracts. There is a small range of products mainly for the staff restaurants which are purchased through UHB contracts, that use approved suppliers.
Sustainable procurement arrangements are in place.	✓/✗	The UHB has not established its own sustainable procurement policy, although the all-Wales and NHS contracts meet the Assembly Government guidance.
Procurement arrangements support the delivery of planned menus.	✓	The UHB has introduced robust arrangements to ensure procurement arrangements support the delivery of planned menus. The UHB has a clear comprehensive policy for dietetic involvement in contacting for food commodities, which is good practice. Recently, procurement agreed a 28-day notification period for supplier amendments. Arrangements are also in place to allow forward buying of some products to secure menu continuity at competitive prices.
Production		
The UHB operates a computerised catering system to facilitate production planning and control?	✗	The CPU uses a well established manual paper process, which is often time consuming. The process has recently been improved through introducing spreadsheets. Whilst this is a positive step forward no recent work has been done to assess the efficiency benefits of introducing a fully computerised catering system. There is scope to review this approach as part of catering strategy development.
Patients order meals less than 24 hours in advance?	✓	Slightly different systems are operating at each hospital. At UHW patients, regenerated food is prepared on the ward and production is supported by a bed plan document identifying special diets and requirements. At UHL patients meals are ordered the day before or first thing in the morning. This aggregated information is used by the central kitchen to plan production and then the set up of individual ward trolleys.
Standard costed menus are in use to ensure consistency of quality and cost.	✓	The CPU uses standard costed recipes which have been dietetically validated. Compliance with the recipes is monitored through the quality management process.
A production plan is in place to guide the kitchen's tasks.	✓	The production plan operates seven days in advance of the menu and uses a batch control system. The production plan was reduced from 14 days to accommodate the UHL service within existing resources. This change has had no adverse affect on the CPU to meet production.

Good practice	In place?	Further information
Production		
Portion controls in place and supported by training.	✓	Portion control is monitored, through the quality process and production supervisors.
Quality of food is monitored at key stages in production.	✓/✗	The CPU has effective quality monitoring arrangements in place. The UHL central regeneration kitchens have effective quality monitoring arrangements in place including chef tasting. Regeneration food quality monitoring arrangements are less well developed in UHW. Managers highlighted a range of issues including, the regeneration stability of some products. Some ward based catering staff were not always aware that some of the menu items needed to be cooked for different times which impacted on the final quality.
Food safety		
Robust arrangements in place to ensure food safety (eg, food temperature checks).	✓	Robust arrangements in place and our food quality checks found hot food temperatures were greater than 70°C at the end of service. This was well above the recommended 63°C minimum.
A Hazard Analysis Critical Control Points (HACCP) policy is in place.	✓	All policies are now in place with the recent completion of the UHW Heathfields restaurant policy.
Catering facilities regularly inspected by local environmental health officers.	✓	The UHB's catering arrangements are subject to annual inspections by the two local authorities (Cardiff County Council and the Vale of Glamorgan Council). To foster a collaborative approach, senior managers are currently working with both councils to develop a unified approach for inspections.
Action taken in response to Environmental Health Officer (EHO) recommendations.	✓	There is evidence that high risk issues are addressed quickly, although some, like the CPU flooring repairs, were taking longer than originally planned to complete.
Cost control		
Computerised catering system in place to support service management and monitoring.	✗	No computerised system in place.
Cost of catering service known and monitored.	✓	The costs of inpatient and staff restaurant services are identified and managed separately. This is good practice.

Good practice	In place?	Further information
Cost control		
There are effective and flexible ordering systems in place between the wards and the catering department.	✓	The two hospitals are operating slightly different systems because of the different food regeneration processes being used. In UHW, the ward based caterers use their knowledge and experience combined with the good communication processes and the bed plan to make menu production decisions. In UHL, because meals are centrally regenerated, ward hostesses provide the kitchen with their requirements at the start of the day based on a patient's menu choice selection. Both these systems appear to be working effectively, although the arrangements at UHW are more flexible and responsive to ward requirements.
There are effective arrangements in place to monitor food wastage on wards in terms of: • un-served meals; and • un-eaten food.	✗	In the UHB, the WBC staff monitor the number of un-served meals. The UHB's own figures suggest untouched meal wastage levels are as low as 0.3 per cent and unserved meals (overproduction) was running at nine per cent. This contrasts with our own audit which showed that more than 20 per cent of meals were unserved on some wards and the data reported to Welsh Health Estates which averaged 7.5 per cent. Best performing hospitals using bulk service systems can achieve levels of five per cent and at the very least should not exceed 10 per cent. Exhibit 7 provides further details of the wastage levels recorded during the audit at each of the wards visited, and identifies indicative savings which could be achieved by reducing waste to lower levels.
There is an agreed approach to subsidy/ contribution from non-patient services.	✗	There is no subsidy policy in place although the catering services are operating on a breakeven basis. Currently restaurant services are running at a £342,000 loss. Evidence suggests that this position will be even more difficult in 2009-10 because of the introduction of the NHS Wales healthy vending machine policy which catering managers expect will reduce income by over £100,000 on some sites.
A pricing policy for non patient meals is in place.	✓	A single UHB policy is in place, which includes two tier staff and visitor pricing, although auditor testing found this was not always applied by restaurant staff to visitors. In UHW, the restaurant service is in competition with retailers in the concourse, which at times places additional pressures on costs when loss leading promotions cannot be matched.

Good practice	In place?	Further information
Cost control		
Dining room wastage is monitored.	✓	Staff restaurant production wastage level monitoring arrangements have improved over the last year. Restaurant staff are now more aware of the need to control costs and achieve targets. Recent work undertaken by restaurant managers has shown that although income targets are being met there is still scope to improve portion control through training and raising awareness amongst restaurant staff.

Analysis of catering service costs

19. The reasons behind the costs of a service are complex reflecting the effectiveness of procurement, production and control and the optimal staffing levels required to deliver the service.

20. In addition, cost should not be used as the only indicator of the effectiveness of the services as the nutritional policy sets the framework for providing the service and important quality indicators such as nutritional quality of the food patient satisfaction and how well the service is received should be considered. Health boards are required to balance costs, nutritional requirements and quality when coming to a conclusion about the effectiveness of the service. It is important to recognise that providing a quality service that meets nutritional requirements does not always mean high costs.

21. Our analysis of the 2008-09 catering service financial performance (Exhibit 2) has shown that total costs for the service (ie, patient and non-patient costs) are eight per cent above the average costs for Wales.

22. When these costs are adjusted for income, the net costs for UHW are above the Welsh average (Exhibit 3) with staff costs being the main contributor (Exhibit 4).

23. The cost of patient meals varies between the two sites because of the different regeneration systems (Exhibit 5).

24. The trading position of the two hospital restaurant services is showing a staff meal subsidy of £342,000.

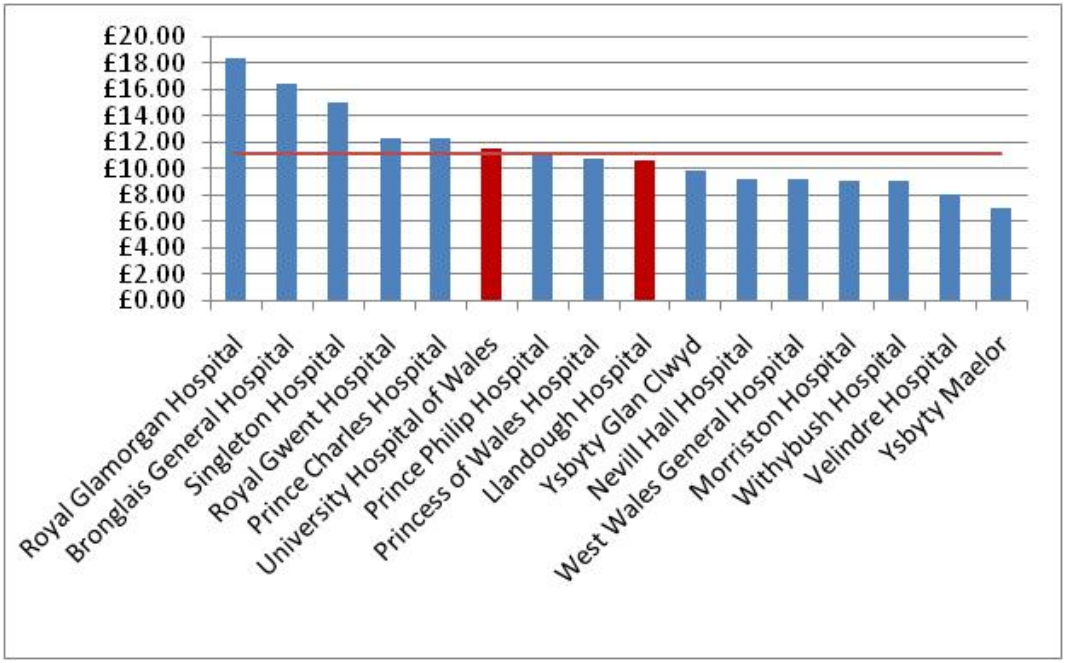
25. A more detailed analysis of both hospitals' costs can be found in Appendix 2.

Exhibit 2: Catering service cost analysis 2008-09

Analysis	Total cost per patient day (£)	Patient cost per patient day (£)	Non-patient service trading position (£)
UHW	11.50	11.22	-171,000
UHL	10.65	9.74	-171,000
Combined service	11.22	10.62	-342,000
Wales	11.08	10.04	

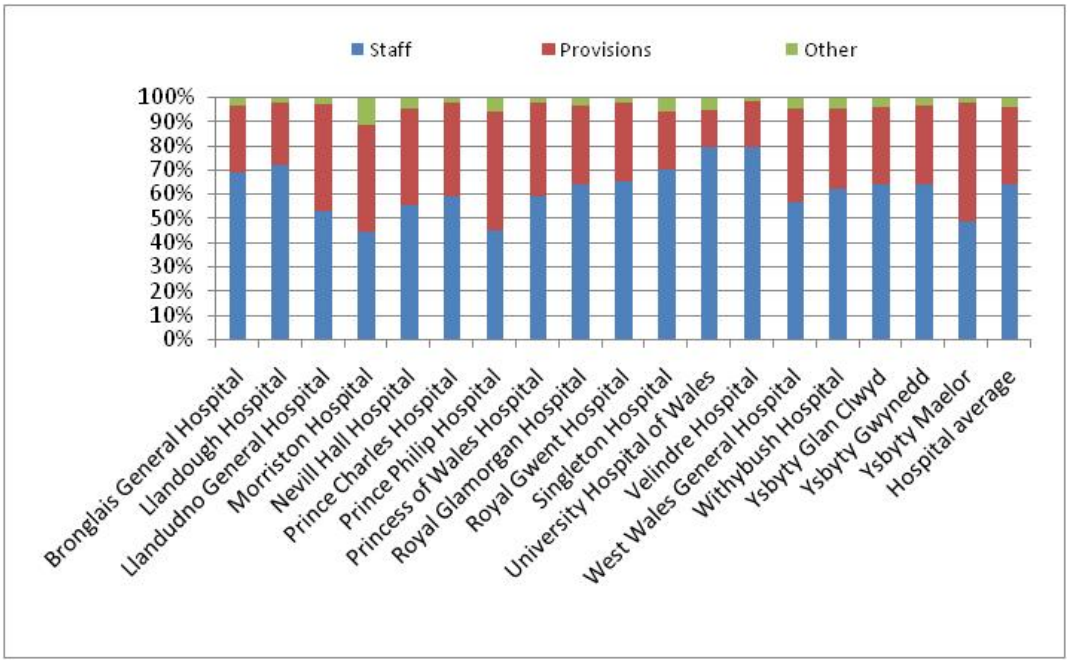
Source: Cardiff and Vale University Health Board and the Wales Audit Office

Exhibit 3: Net cost of catering service per patient day



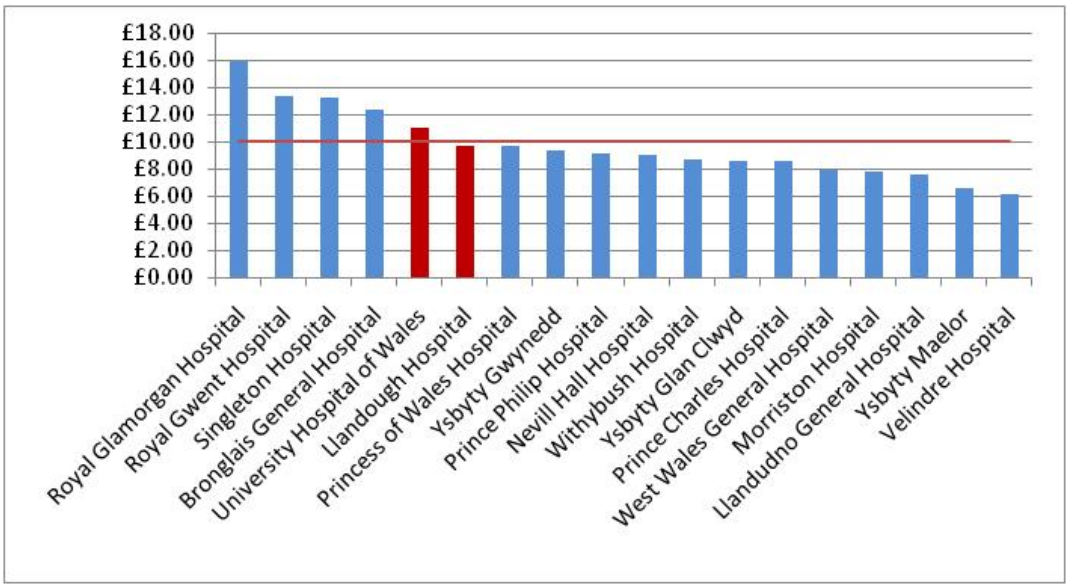
Source: Wales Audit Office

Exhibit 4: Expenditure distribution



Source: Wales Audit Office

Exhibit 5: Comparative costs of the patient service

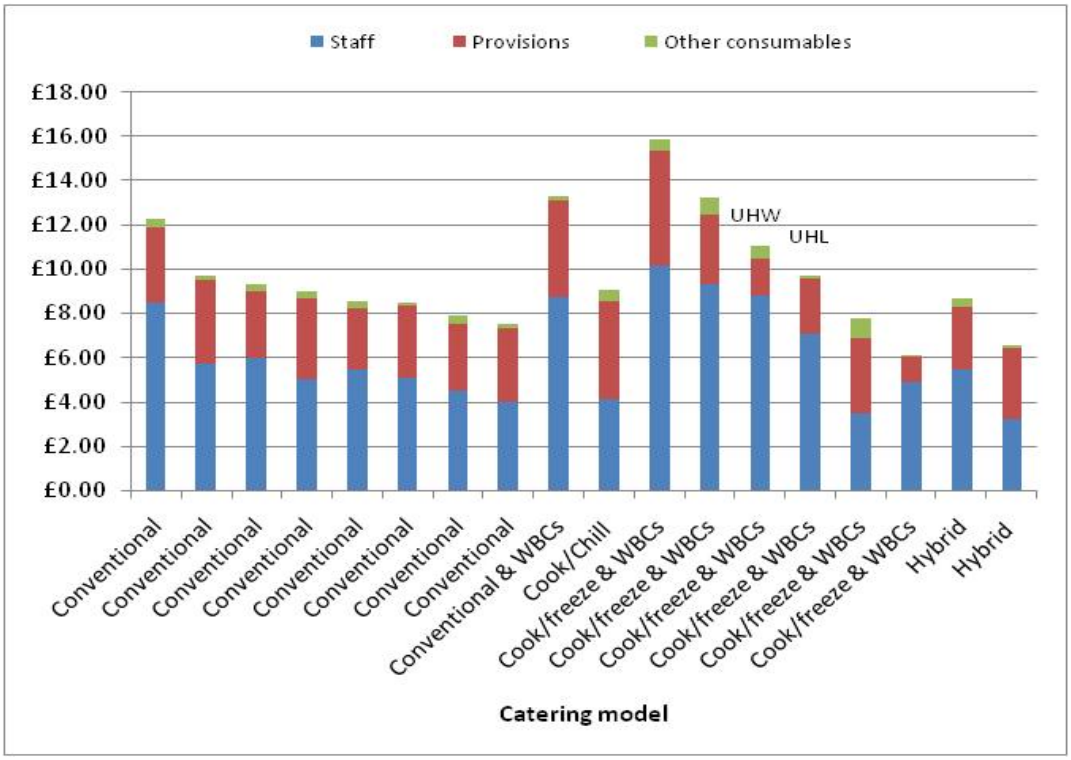


Source: Wales Audit Office

26. Each type of cooking method and service delivery has its own strengths and weaknesses, and health boards need to make their own decisions as to what method is the most appropriate for their own organisation. The relative costs of these different approaches is summarised in Exhibit 6.

Exhibit 6: Total cost of patient catering per patient day 2008-09 by cooking and delivery method

WBC= ward based catering staff



Source: Wales Audit Office

27. Our review included a one-day observational audit on each of the seven wards of one meal service covering either the lunchtime or evening meal service. This audit included an assessment of food wastage from un-served meals and plate waste. The latter was measured by reversing the nutritional assessment documentation guidance contained in the *All Wales Food Record Chart Guide*. For example a meal recorded as 75 per cent eaten for nutritional monitoring was recorded as 25 per cent plate wastage. In addition we only applied this measurement if the plate waste included the higher cost main protein element rather than just vegetables. Although this method is not as robust as the food weight analysis tool it does provide a sufficiently quick and sensitive way to identify problem areas.

28. The levels of food wastage recorded during the audit were significantly higher than those routinely reported through the UHB's internal monitoring processes. Ward based catering staff confirmed that the levels of unserved meals that we recorded were not unusual suggesting underreporting may be taking place.

29. The percentage of un-served meals was high and varied significantly between the wards visited. At best, more than one in 10 meals was wasted, because they were not served although on other wards visited, this could amount to nearly half the meals. The audit identified a number of factors that contribute to the high wastage levels from unserved meals. These included:

- A large number of patients on some wards (E4 and W6) had poor appetites and when the meal trolley arrived did not ask for a full portion although a full sized portion had been prepared for them in the kitchen. A patient having a poor appetite is not an uncommon event on these wards and there could be opportunities to reduce this wastage by improving communication between the ward and the catering department about the potential demand before the trolley is prepared.
- The catering service in UHW regenerates food at the ward level using standard eight portion trays, which can lead to overproduction at times. This is less of a problem for UHL where production is on a whole hospital basis. To overcome this, best performing services now use a range of two, four and eight serving trays to minimise wastage.
- The MAU in UHW is a fluid emergency environment and it is difficult to predict what meals are required given the high patient turnover.

30. Levels of plate waste were very variable across the wards visited and were typically higher in UHL. The reasons for patients not eating their food can be complex and varied and often reflect their medical condition and personal taste. However, the audit found that portion control management was less effective at UHL, and was a contributory factor to the higher plate waste observed at that site, with patients who had poor appetites being served portions which were too large.

Exhibit 7: Meal wastage levels including predicted savings

Ward	Un-served meals	Plate waste	Total wastage	Possible efficiency savings un-served meals (5% target)	Possible efficiency savings plate wastage (10% target)
UHW-C6	11%	6%	17%		
UHW A2	19%	19%	38%		
UHW A1 LINK and MAU	42%	5%	48%		
UHL E7	14%	13%	27%		
UHL W2	14%	4%	18%		
UHL W6	44%	32%	76%		
UHL E4	46%	29%	75%		
Overall	**24%**	**15%**	**39%**	**£198,000**	**£52,000**

Source: Wales Audit Office

31. The food wastage levels recorded during the audit are summarised in Exhibit 4. The very best performing hospitals with bulk service catering systems can reduce waste levels to five per cent. If food wastage from unserved meals could be brought down to that level, we estimate potential savings may be as high as £198,000 per year (based on the UHB's patient provision costs for both hospitals). Further savings are possible through a reduction in the levels of plate waste. As an illustration, Exhibit 7 shows that a further £52,000 could be saved

annually if the plate waste observed during the audit was reduced to 10 per cent (which is a reasonable level of wastage to aim for).

Delivery of food to the ward

32. The UHB provides patients with good quality food although changing some existing practices and improving the communication between staff in some areas could improve the patient experience. We have come to this conclusion because:
    - food arrived at the ward in a good state but not always at the most appropriate time;
    - the ward environment and patients were not always prepared to receive meals;
    - food was generally well presented and remained in a good condition at the end of the meal time;
    - whilst patients in UHW always received the correct meal, this was not the case in UHL;
    - most problems in delivering the correct meal to a patient were due to poor communication between staff involved in the process; and
    - whilst WBC staff play an important role in delivering a quality service, there is scope to increase their understanding of patients' nutritional requirements.
33. The following table summarises the findings supporting the conclusion.

Table 3: Delivery of food to the ward and patient

Good practice	In place at UHW?	In place at UHL?	Further information
Food arrives at the ward at the right time.	✓	✓	The meal service consistently started at the scheduled time. Ward managers confirmed there were no issues about meeting the schedule although some would like more flexibility in timing to match ward needs. A recent UHW catering department patient survey had shown 86 per cent of patients were happy with the timing of meals during the day. This was a similar figure to the 84 per cent found in our own survey. Several ward managers have taken personal responsibility for engaging with the catering department to renegotiate different meal times to ensure that meal times fitted better with other ward activities. This is a good example of the principles of *Free to Lead, Free to Care* being adopted in practice.
Food arrives at the ward in a good state (eg, at the right temperature).	✓	✓	The ward observation exercise found that the ward trolleys kept food at the appropriate and recommended temperatures.

Good practice	In place at UHW?	In place at UHL?	Further information
Arrangements are in place to ensure that patients receive the right meal.	✓	✗	The arrangements in UHW are more robust than in UHL. In UHW, the ward based caterer follows a bed plan that identifies the dietary requirement of each patient. The process was also reinforced by good verbal communication between all staff involved. This arrangement was even more effective when the ward had a dedicated dietetic assistant. In UHL these arrangements are not in place and rely heavily on ward staff communicating with catering staff. This arrangement was not always as effective as it could be. On one ward we observed patients not always receiving the correct meal. The UHL ward managers also expressed concern about the quality of the evening service for patients receiving special diets, with some at times receiving no meal at all because the trolley had run out. The catering department was not aware of the problem and there appeared to be no arrangements in place to resolve these type of issues.
Dedicated staff (hostesses, housekeepers or ward based caterers) are present to help serve the meals, and are familiar with processes to meet patients' nutritional requirements.	✓/✗	✓/✗	Each ward has dedicated catering staff, although large numbers of these staff 'floated' between wards to cover sickness and annual leave. A recent dietetic department survey found 20 per cent of staff floated at any one time in UHL. Very few ward based catering staff had an understanding of basic nutrition which had caused problems in fully complying with the red tray system and pureed and soft diet demands. This was more apparent when floating staff were used and moved between wards. The need to improve basic training had been recognised by dietetics and a programme was being piloted in UHL. This training will need to be rolled out to UHW as well.
Staff involved in serving food have been trained in food presentation.	✓	✓	Ward based caterers receive training in food presentation. Although monitoring arrangements are in place, our ward observation exercises suggested that these skills could be further developed.
Staff involved in serving food have been trained in food hygiene.	✓/✗	✓/✗	All catering staff are trained in food hygiene. However, on some wards nursing staff help serve food to the patients. Typically these ward staff had not received any basic food hygiene training.
The patient environment is prepared to receive the meals.	✓/✗	✓/✗	The majority of wards visited had a 'de-clutter round' between 10 am and 11 am to prepare the ward environment for lunch. However, our ward observation found this was not always successful given that some patients' tables were often cluttered including in some instances with urinal pots.

Good practice	In place at UHW?	In place at UHL?	Further information
Patients have the opportunity to wash their hands before eating.	✘	✘	With the exception of W2, where it is actively encouraged, patients on the wards visited were not given the opportunity to wash their hands before eating. A recent trial of issuing hand wipes prior to the meal was cancelled because of cost. Although ward managers felt the practice encouraged good hygiene.
Food is delivered to the patient quickly and efficiently.	✓	✓	The service in UHW takes longer to deliver because patients make their choice at the point of service. In both hospitals good practice is observed with the service starting at alternating ends during the day. (This ensures patients in the bay furthest from the ward entrance do not always have the least choice or are presented with food that has deteriorated.) Most meal services are completed within the hour although this was considerably speeded up when there were two catering staff involved or a large number of nursing staff helped out.

34. Catering departments should be producing high quality meals for patients where quality should be maintained as the meal is presented to a patient. This means providing sufficient choice on the menu, serving attractive and tasty meals at appropriate temperatures. Monitoring the service in terms of the quality of dishes provided should take place continually to ensure that high standards are maintained and improved.

35. The UHB's monitoring arrangements rely heavily on a monthly patient satisfaction survey which is not supplemented by managers and supervisors undertaking a formal programme of spot checks and quality monitoring.

36. Our review included a food tasting panel involving auditors, catering, ward and dietetic staff. Using a simple 1-5 score the panel assessed the food for:

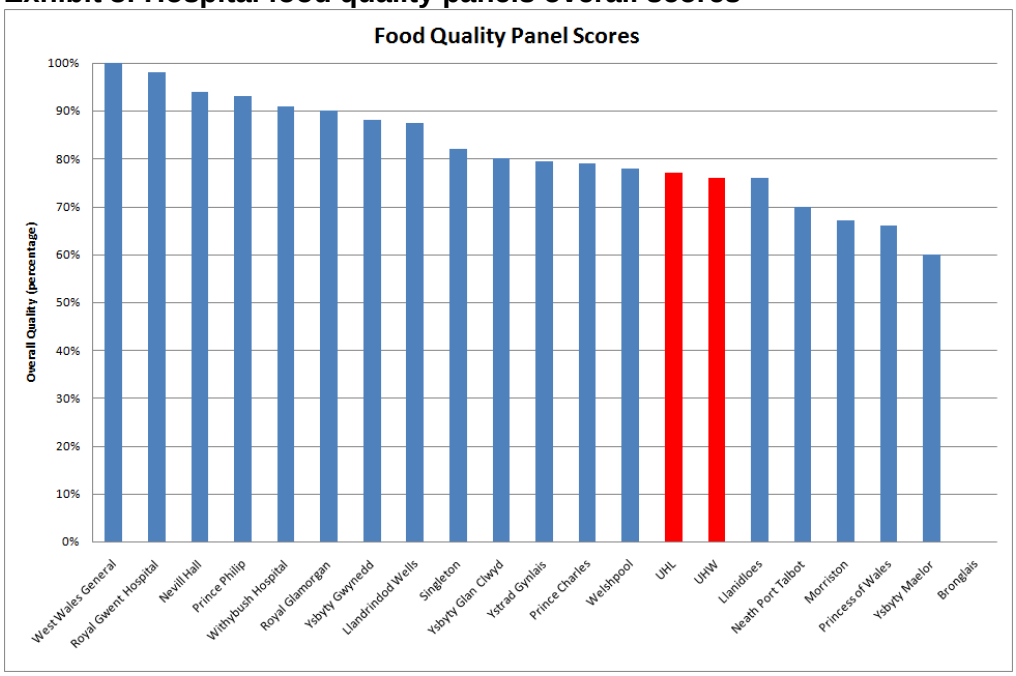
- temperature and appearance;
- smell, taste and texture;
- the correct item ordered by the patient from the menu; and
- the correct portion size requested by the patient.

37. Although such an approach will always have a degree of subjectivity to it, it was applied consistently at all the NHS organisations visited. This therefore provides an opportunity to draw some comparisons between the different sites visited.

38. A maximum score of 100 per cent is possible if all the criteria tested received a '5 rating'. The scores at UHW and UHL were 76 per cent and 77 per cent respectively. Whilst these scores do not give any significant cause for concern, they were lower than those recorded in many other Welsh hospitals (Exhibit 8).

39. In UHL, the food's ability to hold the temperature particularly vegetables and soft food options and the overall texture of the food scored the lowest. Whereas in UHW the weakest scores were for appearance and taste mainly due to regeneration and problems with the mince option and watery vegetables.

Exhibit 8: Hospital food quality panels overall scores



Source: Wales Audit Office

Meeting patients' nutritional needs and supporting recovery

40. Some wards are better than others at ensuring that catering and nutrition support patients' recovery with one ward falling well short of acceptable practice. We have come to this conclusion because:

- the approach to protected meal times is highly variable and is not as widely observed as UHB data would indicate;
- there is evidence that patients receive nutritional screening on admission, although the accredited tool in use is not the one recommended by the Assembly Government;
- the current approach to nutritional screening does not include an assessment of oral health and the ability to communicate as these are separate nursing assessments;
- the dietetic assistant role had proved to be effective in supporting nutritional assessment and management;
- although the red tray system has been widely adopted the way it is used can vary between wards;
- in the main, the UHB's catering arrangements provide choice and respond effectively to meeting individual needs;
- patients food and fluid intake is routinely recorded, although intake charts are not always signed off by registered nurses at the end of every shift;

- wards will not always have functional weighing scales as a result of the time it takes to arrange repairs to broken scales;
- where ward managers have taken a personal responsibility to improve arrangements, nutritional management has been improved; and
- the current practice of undertaking inpatient radiology scans at the end of the morning and afternoon session means some patients often missed their meal.

41. The following table summarises the findings supporting these conclusions.

Table 4: Meeting patients' nutritional needs and supporting recovery

Good practice	In place at UHW?	In place at UHL?	Further information
Patients are weighed and undergo nutritional screening within 24 hours of admission, supported by a validated nutritional screening tool.	✓	✓	The UHB does not use the MUST[1] tool, instead it uses its own accredited WAASP[2] tool. This tool does not use the Body Mass Index (BMI) at the assessment stage because height is not routinely recorded. On referral, dieticians calculate the BMI using the ulna height conversion method. Conversion measuring tapes are not routinely available to nursing staff and wards only have TED stocking measuring tapes which are in inches. All patients are screened within 24 hours and the majority on admission. In addition, in the UHW medical admission unit dedicated dietetic assistants ensure assessments are undertaken on these patients as they are admitted. The current approach to nutritional screening does not include an assessment of oral health and the ability to communicate. These are separate nursing assessments. This deficiency has been recognised by the UHB and plans are in place to introduce this assessment. When weighing equipment requires repair, ward managers go through the procurement department, this adds delay with most repairs taking around a week. In other health boards where ward managers contact the repairers directly, repairs take on average two days.

[1] The Malnutrition Universal Screening Tool (MUST) has been designed by the Malnutrition Advisory Group (MAG) of the British Association for Parenteral and Enteral Nutrition (BAPEN) as an effective way of identifying adults (particularly the elderly) who are malnourished, at risk of malnutrition, or obese. The tool also includes guidelines for introducing an effective and suitable treatment plan.

[2] Weight Appetite Ability to Eat – Stress Fractures and Pressure Sores, the UHB's locally validated nutritional assessment tool.

Good practice	In place at UHW?	In place at UHL?	Further information
Where appropriate, patients are referred to a dietician, and/or to a speech and language therapist.	✓/✗	✓	All patients with a WAASP score of seven must be referred to a dietician. At the time of the audit because of dietetic staff shortages, one ward had been requested by dietetics not to refer patients for an assessment until the score was 14. This raises a concern that patients who should be receiving a dietetic assessment were not getting this important intervention.
A nutritional care plan is prepared and implemented, informed by patients' nutritional risk score.	✓	✓	Care plans were in place based conforming to the Assembly Government's Nutrition Care Pathway. Weekly 'weigh days' introduced on wards such as A1 have improved the nutritional assessment regime.
Protected meal times arrangements are in place.	✓/✗	✓/✗	The UHB has indicated that most wards are expected to introduce protected mealtimes. Whilst we found some wards were effectively applying protected mealtimes this was not always the case and some wards had stopped the practice after it had been introduced. The UHB indicated that, currently, 62 per cent of its wards operate a protected mealtime regime. Our work suggests that is an over estimation of the actual position, and in reality the number of wards where protected meal times are genuinely observed is probably much lower.
Menu provides patients with a good choice of food.	✓	✓	The three-week cycle menu has at least two main choices and a vegetarian choice. However, several ward managers had identified that soft meal and pureed food diet choices were repetitive.
Menu contains options for vegetarians.	✓	✓	A vegetarian choice is always available.
Menu contains options for patients from specific religious/ethnic backgrounds.	✓	✓	The UHB has certified kosher and halal meals available on demand. This is a long standing arrangement and was recognised in the original 2000 audit as best practice.

Good practice	In place at UHW?	In place at UHL?	Further information
Arrangements are in place to identify patients who may need specific help eating their food.	✓	✓	Most, but not all, adult wards are operating the red tray system to identify patients who require assistance with feeding. However, the application of the red tray system can vary between individual wards which can cause confusion when catering staff work across different wards. The dietetic assistant role was shown to work exceptionally well in identifying patients requiring assistance and then ensuring they receive it. Ward W2 is currently piloting a traffic light system because some patients did not like the red tray system. This approach has the advantage of identifying nutritional issues to medical staff.
Patients are given assistance to eat if required.	✓	✓/✗	In the majority of instances assistance was given although on one ward this was not always the case. One patient was observed not receiving assistance although nursing staff were available. On ward W2 the ward manager had established two nutrition link nurse roles which ensured specialist advice was available to ward staff and patients during the day covering both daytime shifts. This is effective practice.
Patients are able to get snacks outside mealtimes.	✓/✗	✓/✗	A range of sandwiches is available on wards and ward managers were confident that these arrangements met patients' needs and were supported by the recent fundamentals of care audit which identified 95 per cent compliance with this particular standard. This finding contrasts with our patient survey findings where many patients (65 per cent) were not aware that snacks were available during the day.
Patients food intake is regularly monitored using the All Wales Food Record Chart.	✓	✓	Medium and high risk patients were found to have had a completed food record chart. Explanatory posters were visible on wards and in the monitoring notes.
Food record chart is countersigned by a registered nurse at the end of each shift.	✓/✗	✓/✗	Although the majority of ward managers indicated that registered nurses reviewed charts, auditors noted that they were not always countersigned to confirm this had been done.
Daily and weekly fluid input and output charts are in use.	✓	✓	Fluid charts are in use although the UHB has not started using the all-Wales chart. This is acceptable practice as the UHB is following Assembly Government guidance by using up existing chart stocks (the same information is recorded on both charts).

Good practice	In place at UHW?	In place at UHL?	Further information
Weekly fluid input and output charts are countersigned by a registered nurse once a day.	✓/✗	✓/✗	Although the majority ward of managers were confident that registered nurses reviewed charts they were not always countersigned to confirm this had been done.

Gathering views from patients and sharing information

42. Patient satisfaction with hospital catering is relatively low and because it does not share the patient views it collects between groups of staff, the UHB misses an opportunity to learn and improve. We have come to this conclusion because:
    - patients' views of food and catering services are collected and analysed separately by the catering and nursing staff;
    - the experience of ward managers and catering service is not co-ordinated and shared between different staff groups; and
    - the patient survey undertaken as part of this audit has highlighted a range of views which need to be considered as part of the routine service planning and monitoring.
43. The following table summarises the findings supporting the conclusion.

Table 5: Gathering views from patients on catering services

Good practice	In place?	Further information
There are regular activities to capture patients' views and experiences of catering services.	✓	The catering department undertakes regular monthly patient satisfaction surveys. The results of these surveys are reviewed at catering team meetings. At least once a year ward managers also seek the views of patients as part of the Fundamentals of Care audit programme covering standard 9.
Service users are represented on catering planning groups.	✓/✗	Although the strategic catering and nutrition groups involve the Community Health Council, there are no arrangements in place to directly involve patient groups.
Service users participate in quality reviews of the service.	✓/✗	Recently the UHB involved patients in its food tasting panel for puréed and soft foods. This was found to be a valuable experience and should provide a good template for the future.

Good practice	In place?	Further information
There are effective and co-ordinated arrangements in place to use patients' views and all-staff group experiences to support service improvement.	✘	The results of the monthly catering department patient satisfaction surveys were not routinely shared with ward managers, and similarly the nursing fundamental of care standard 9 audits were not shared with the catering department. Until recently ward managers had little opportunity to share the issues arising from audits and the many examples of good practice being developed at a ward level through established meeting structures. This position is now changing.

44. A summary analysis (Exhibit 9) of the views of patients collected during the audit suggests there is scope for the UHB to improve the nutritional assessment arrangements and engage patients in nutritional health, as not all patients could recall being weighed or talking to nursing or dieticians about their nutritional needs.

45. Few patients are given the opportunity to wash their hands before eating a meal, which is reflected in the recent fundamentals of care audit.

46. The overall satisfaction rate with the service is low, and is particularly low in UHW which scored 58 per cent. This finding contrasts with the catering department's own findings, where overall satisfaction rate was 82 per cent and the fundamentals of care audit (79 per cent). This suggests that there could be scope for the catering department to look at the quality of meals. Along with the quality monitoring arrangements previously discussed, introducing the cross service and patient involvement panels successfully used in the puréed and soft food contract assessments is one approach that could be adopted.

47. There would also be benefits in more fully integrating healthcare standard 9 and in-house catering surveys with each other, not only to avoid duplication but to track progress throughout the year.

Exhibit 9: Patient survey key findings

Question	UHL	UHW	Overall	Wales
Percentage of respondents weighed during their hospital stay	80%	70%	74%	67%
Percentage of respondents whose height was measured during their stay in hospital	50%	21%	28%	32%
Percentage of respondents where a member of the hospital staff talked to them about their dietary needs	70%	19%	37%	41%
Percentage of respondents who were able to choose their meal portion size	65%	45%	53%	65%

Question	UHL	UHW	Overall	Wales
Percentage of respondents who were given the chance to wash their hands before they ate food	70%	59%	63%	84%
Percentage of respondents who felt the area where they ate their food was clean and tidy	100%	76%	91%	94%
Percentage of respondents who were happy with the time meals were served	100%	77%	84%	93%
Percentage of respondents who missed a meal, and had a replacement provided	85%	62%	68%	80%
Percentage of respondents who were satisfied with the food they received	85%	58%	68%	82%

Appendix 1

Audit approach

The audit sought to answer the overall question: 'Are hospitals in Wales providing efficient catering services that meet recognised good practice?'

The following sub-questions underpin the overall question:

- Are strategic planning arrangements relating to catering effective?
- Are procurement arrangements effective and is food sourced from safe suppliers?
- Is food production well controlled?
- Are there efficient arrangements to deliver the food to the ward, and to the patient?
- Do the arrangements at ward level help meet patients' nutritional needs and support their recovery?
- Are there effective arrangements in place to consult patients about the catering service they receive?

An audit module was developed around each of the sub questions set out above.

Exhibit 6: Audit modules

Module	Audit tools
Module 1: Strategic planning arrangements	Cost tree analysis Patient experience survey Management arrangements checklist Interviews
Module 2: Procurement arrangements	Cost tree analysis Management arrangements checklist Process walkthrough Interviews
Module 3: Production control	Cost tree analysis Patient experience survey Management arrangements checklist Process walkthrough Food quality survey Interviews
Module 4: Ward delivery arrangements	Patient experience survey Ward observation tool Food quality survey Interviews

Module	Audit tools
Module 5: Supporting recovery	Patient experience survey Ward observation tool Observational wastage tool Food quality survey Nutritional assessment tool Interviews
Module 6: Patient engagement	Patient experience survey Interviews

Cost comparison

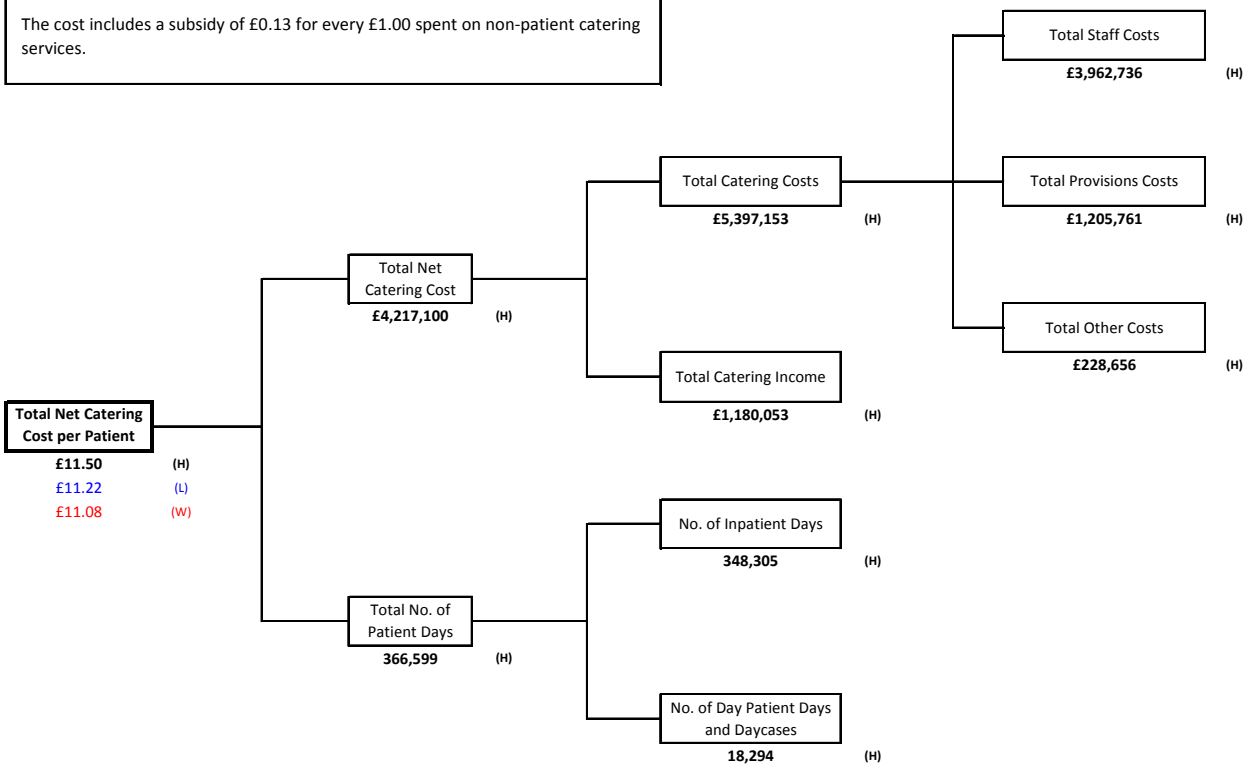
Total Catering Costs

Hospital: **University Hospital of Wales**
LHB/ Trust: **Cardiff & Vale University Health Board**

Key Issues

The total net cost per patient day to the hospital is £11.5 compared to an LHB figure of £11.22 and a Welsh figure of £11.08

The cost includes a subsidy of £0.13 for every £1.00 spent on non-patient catering services.



Key
Hospital figures in bold;
LHB/Trust figures in blue;
Welsh figures in red.

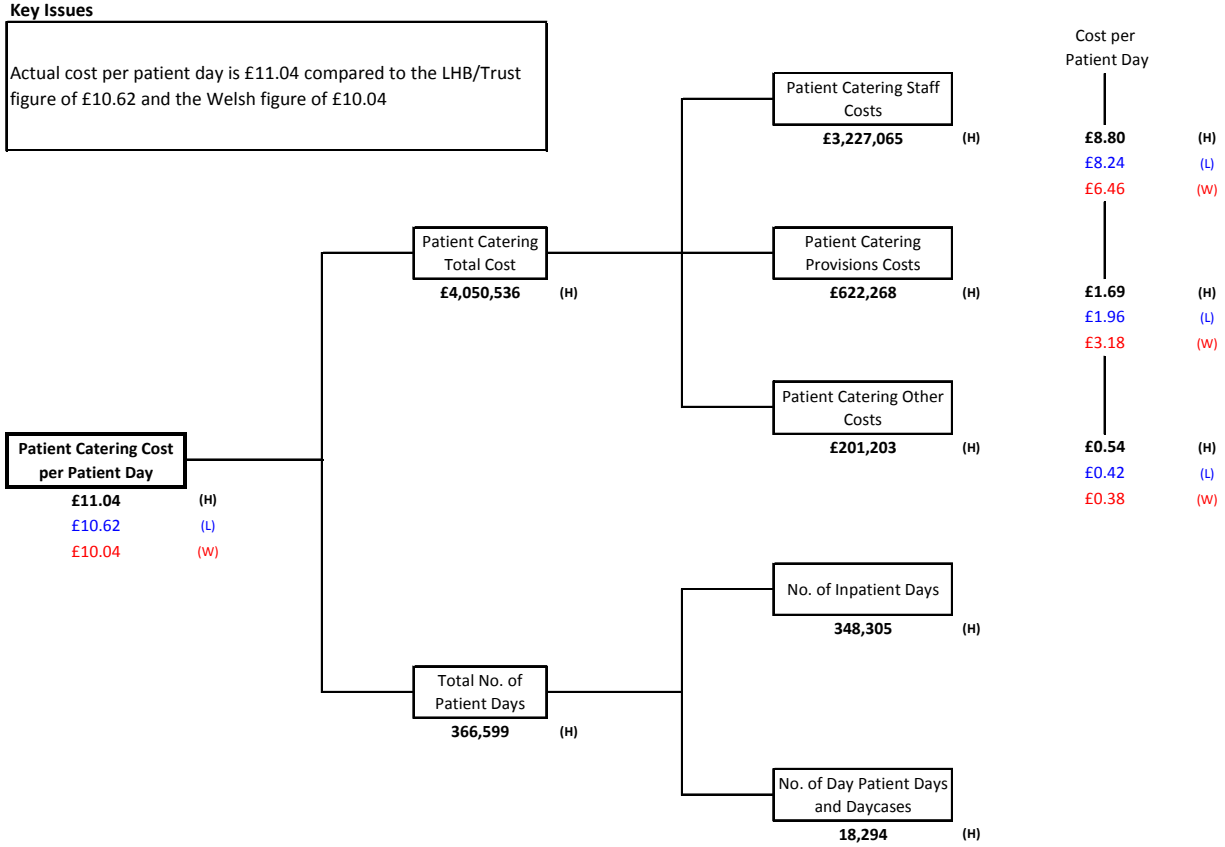
Notes
The LHB/Trust and Welsh figures are based on the hospitals that have particpated in the survey, not all hospitals in Wales have particpated

Patient Catering Costs

Hospital: **University Hospital of Wales**
LHB/ Trust: **Cardiff & Vale University Health Board**

Key Issues

Actual cost per patient day is £11.04 compared to the LHB/Trust figure of £10.62 and the Welsh figure of £10.04



Prime cooking method: Cook/freeze prepared on site Produced via CPU, UHW
Food regeneration: On the ward
Service delivery: Bulk to wards
Washing up: Ward washing up

Key

Hospital figures in bold;
LHB/Trust figures in blue;
Welsh figures in red.

Notes

The LHB/Trust and Welsh figures are based on the hospitals that have particpated in the survey, not all hospitals in Wales have particpated

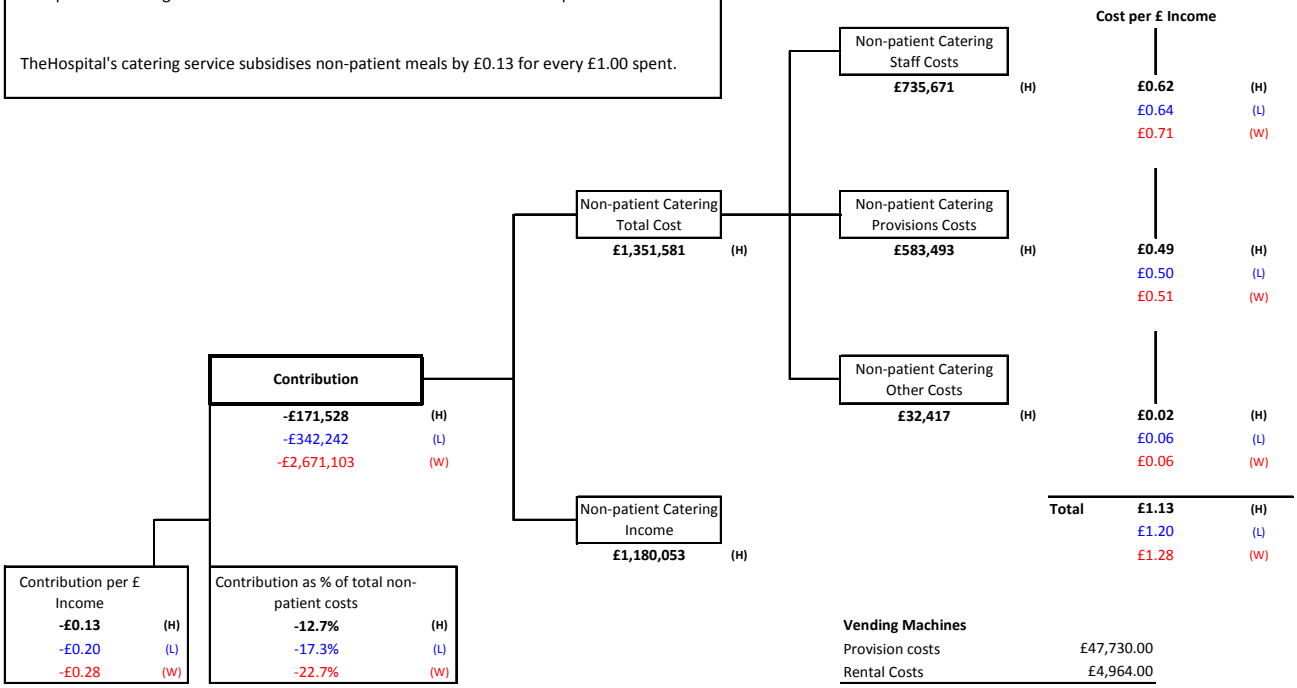
Non-Patient Activity Costs

Hospital: **University Hospital of Wales**
LHB/ Trust: **Cardiff & Vale University Health Board**

Key Issues

Non-patient catering services does not make a cost contribution to the hospital

TheHospital's catering service subsidises non-patient meals by £0.13 for every £1.00 spent.



Vending Machines	
Provision costs	£47,730.00
Rental Costs	£4,964.00
Total Costs	£52,694.00
Income	£95,915.00

Key

Hospital figures in bold;
LHB/Trust figures in blue;
Welsh figures in red.

Notes

The LHB/Trust and Welsh figures are based on the hospitals that have particpated in the survey, not all hospitals in Wales have particpated

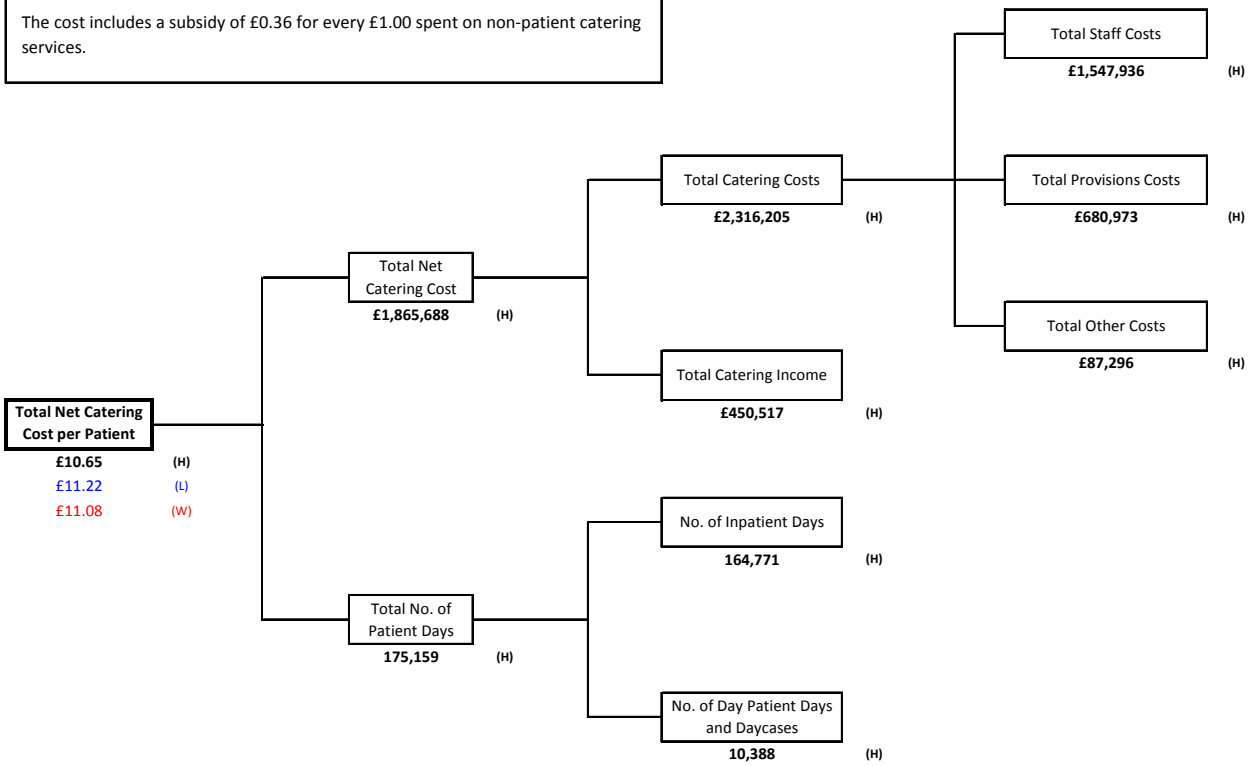
Total Catering Costs

Hospital: **Llandough Hospital**
LHB/ Trust: **Cardiff & Vale University Health Board**

Key Issues

The total net cost per patient day to the hospital is £10.65 compared to an LHB figure of £11.22 and a Welsh figure of £11.08

The cost includes a subsidy of £0.36 for every £1.00 spent on non-patient catering services.



Key
Hospital figures in bold;
LHB/Trust figures in blue;
Welsh figures in red.

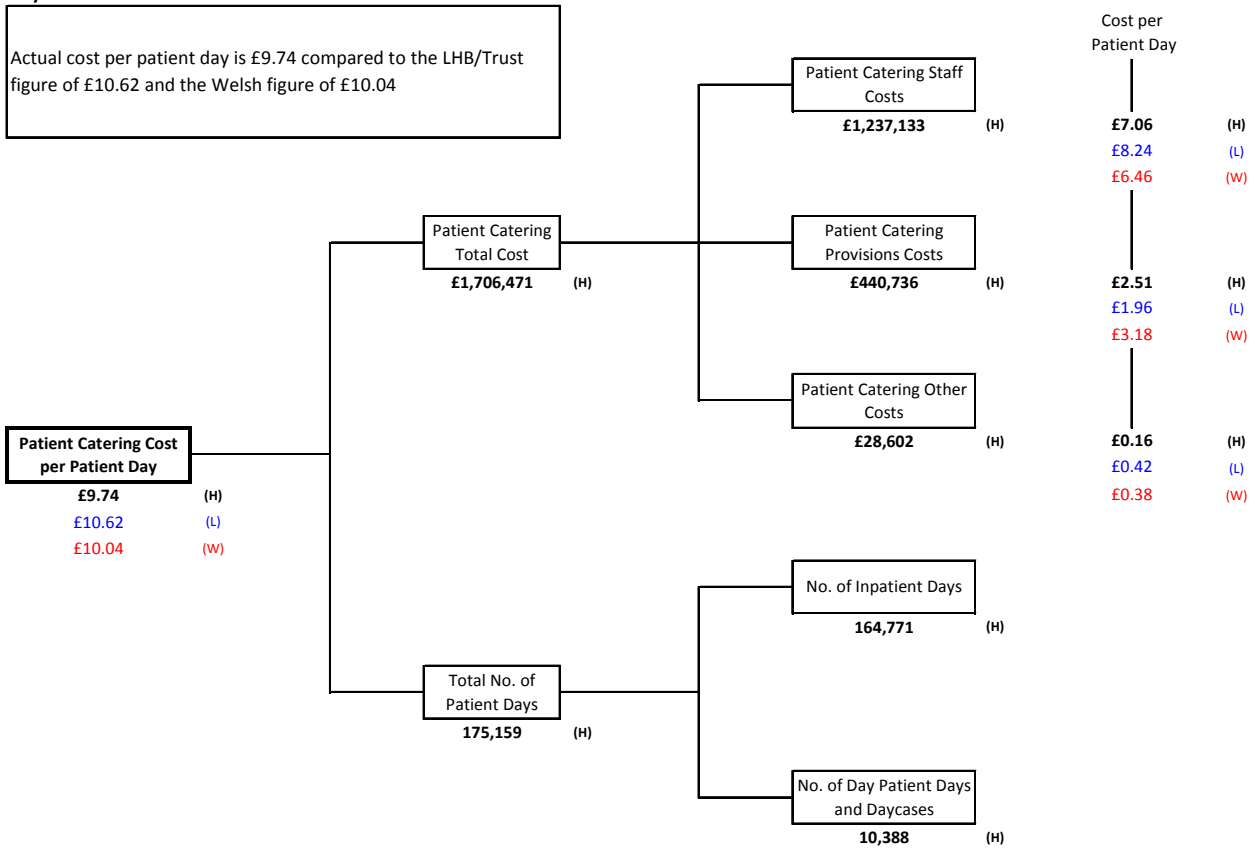
Notes
The LHB/Trust and Welsh figures are based on the hospitals that have particpated in the survey, not all hospitals in Wales have particpated

Patient Catering Costs

Hospital: **Llandough Hospital**
LHB/ Trust: **Cardiff & Vale University Health Board**

Key Issues

Actual cost per patient day is £9.74 compared to the LHB/Trust figure of £10.62 and the Welsh figure of £10.04



Prime cooking method:	Cook/freeze externally sourced Sourced within the UHB via UHW CPU
Food regeneration:	Centrally before distribution
Service delivery:	Bulk to wards
Washing up:	Ward washing up

Key

Hospital figures in bold;
LHB/Trust figures in blue;
Welsh figures in red.

Notes

The LHB/Trust and Welsh figures are based on the hospitals that have particpated in the survey, not all hospitals in Wales have particpated

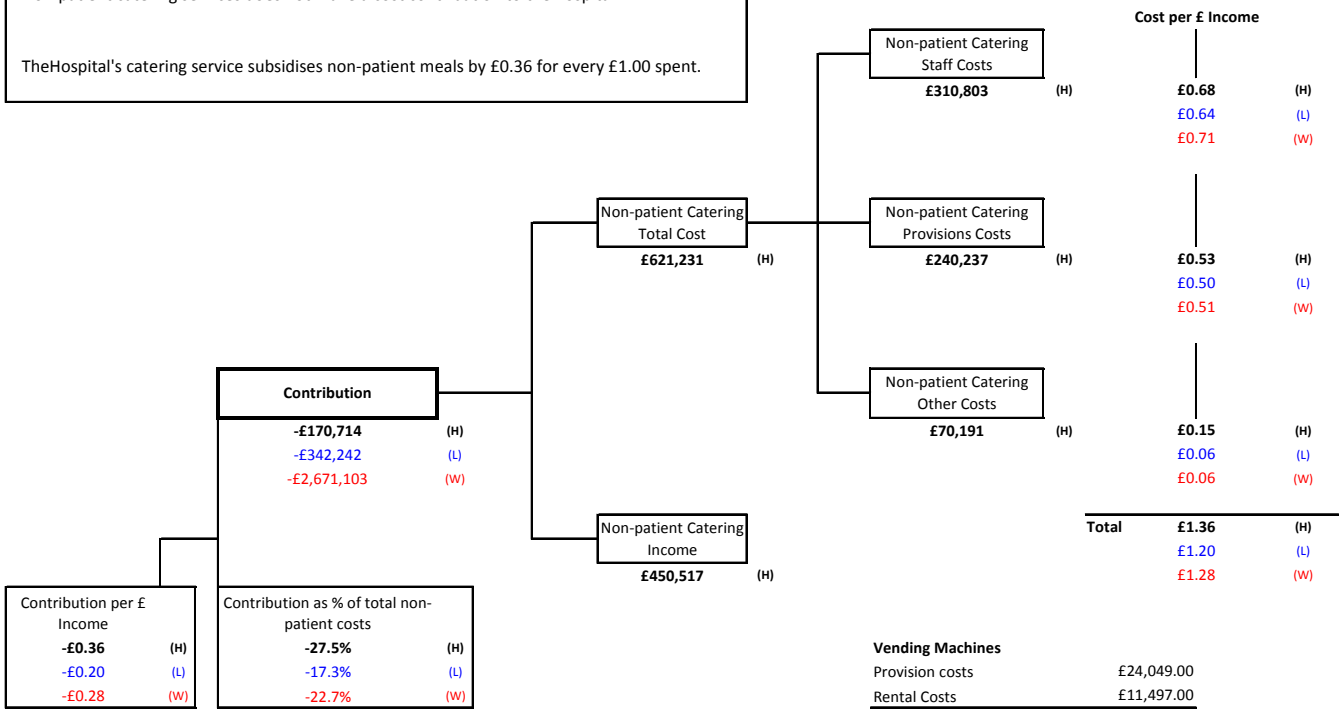
Non-Patient Activity Costs

Hospital: **Llandough Hospital**
LHB/ Trust: **Cardiff & Vale University Health Board**

Key Issues

Non-patient catering services does not make a cost contribution to the hospital

TheHospital's catering service subsidises non-patient meals by £0.36 for every £1.00 spent.



Vending Machines	
Provision costs	£24,049.00
Rental Costs	£11,497.00
Total Costs	£35,546.00
Income	£44,951.00

Key

Hospital figures in bold;
LHB/Trust figures in blue;
Welsh figures in red.

Notes

The LHB/Trust and Welsh figures are based on the hospitals that have particpated in the survey, not all hospitals in Wales have particpated

Appendix 3

Patient experience

Number of returned surveys:

- UHL 20
- UHW 38
- Wales 690

Question	UHL	UHW	Overall	Wales
Percentage of respondents who were weighed during their stay in hospital?	80%	70%	74%	67%
Percentage of respondents whose height was measured during their stay in hospital?	50%	21%	28%	32%
Percentage of respondents where a member of the hospital staff talked to them about their dietary needs?	70%	19%	37%	41%
Percentage of respondents who could understand the menu?	100%	100%	100%	96%
Percentage of respondents who had enough menu choice?	74%	61%	65%	73%
Percentage of respondents who were able to choose the portion size?	65%	45%	53%	65%
Percentage of respondents who thought the menu changed often enough?	65%	66%	66%	67%
Percentage of respondents who had enough menu choice to suit their religious beliefs?	100%	100%	100%	96%
Percentage of vegetarian or vegan respondents who had enough choice to meet their needs?	94%	97%	96%	95%
Percentage of respondents given the chance to wash their hands before they ate their food?	70%	59%	63%	84%
Percentage of respondents who thought the area where they ate their food was clean and tidy?	100%	76%	91%	94%
Percentage of respondents who were happy with the time when meals were served?	100%	77%	84%	93%
Percentage of respondents whose meal was free from disturbance by nurses or doctors treating or assessing them?	100%	100%	100%	88%
Percentage of respondents given enough time to finish their meal?	100%	95%	97%	97%
Percentage of respondents who missed a meal, and were given a replacement one?	85%	62%	68%	80%
Percentage of respondents getting the meal they ordered?	100%	88%	93%	91%

Question	UHL	UHW	Overall	Wales
Percentage of respondents who had fresh fruit available?	75%	48%	59%	73%
Percentage of respondents where drinks were available between meal times?	95%	73%	81%	90%
Percentage of respondents where snacks were available between meal times?	58%	22%	35%	38%
Percentage of respondents where fresh water was available throughout the day?	100%	84%	89%	97%
Percentage of respondents who had food served at the temperature they would have expected?	90%	70%	76%	83%
Percentage of respondents given enough food to eat?	100%	74%	83%	87%
Percentage of respondents who were happy with the taste of the food they were given?	85%	70%	76%	83%
Percentage of respondents who were happy with the appearance of the food they were given?	89%	70%	76%	84%
Percentage of respondents who were happy with the healthiness of the food they were given?	80%	74%	76%	86%
Percentage of respondents who were satisfied with the food they received?	85%	58%	68%	82%

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